

REMARKS

Claims 38 and 45 are amended. New claims 54-57 are added. The originally-filed application supports the new claims at, for example, Figs. 5-7. Claims 38-57 remain in the application. Reconsideration of the application in view of the amendments and the remarks to follow is requested.

Claims 43, 47-49, 51 and 53 are allowed.

The title is amended as requested by the Examiner.

Claims 42 and 44 stand rejected under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to make and use the invention. Claims 38, 39, 45, 46, 50 and 52 stand rejected under 35 U.S.C. §102(b) as being anticipated by Chau (5,763,922). Claims 40-42 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Chau.

Regarding the §112, first paragraph, rejection against claims 42 and 44, the Examiner acknowledges that the specification has disclosure for forming a PMOS transistor having nitrogen atoms in the gate oxide, wherein the nitrogen is proximate an interface of the substrate and the gate oxide (page 2 of paper no. 11). However, the Examiner then states that there is teaching in the art that it is not desirable to form nitrogen atoms near the interface of a gate dielectric of a PMOS transistor and a substrate, and refers to Chau (U.S. 5,763,922) for support (pages 2-3 of paper no. 11). Whether Applicant's claimed invention is "desirable" is not relevant to the question of enablement, and therefore, the rejection is inappropriate.

The Examiner is respectfully reminded that the test of enablement was presented as a question by the U.S. Supreme Court as, is the experimentation needed to practice the invention undue or unreasonable? M.P.E.P. §2164.01 (8th Ed.) citing *Mineral Separation v. Hyde*, 242 U.S. 261, 270 (1916). That standard is still the one to be applied. M.P.E.P. §2164.01 (8th Ed.) citing *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988). Accordingly, even though the statute does not use the term “undue experimentation,” it has been interpreted to require that the claimed invention be enabled so that any person skilled in the art can make and use the invention without undue experimentation. *Id.*, See also *United States v. Telectronics, Inc.*, 857 F.2d 778, 785, 8 USPQ2d 1217, 1223 (Fed. Cir. 1988) (“The test of enablement is whether one reasonable skilled the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation”). The Examiner has not stated that one skilled in the art referring to Applicant’s disclosure could not make or use Applicant’s claimed invention, but that it is undesirable. As the above-stated authority demonstrates, desirability of an invention is not the test for enablement, and therefore, the §112, first paragraph, rejection against claims 42 and 44 is inappropriate and should be withdrawn.

Moreover, since no other rejection is presented against claim 44, Applicant respectfully requests allowance of claim 44 in the next office action.

Regarding the anticipation rejection against claim 38 based on Chau, such claim is amended to recite a gate dielectric layer of p-type field effect transistors comprising...nitrogen atoms being higher in concentration within the gate dielectric

layer at only one elevational location as compared to another elevational location wherein the one elevational location is spaced from a gate. The originally-filed application supports the amendment language at, for example, Figs. 3-7. Chau teaches PMOS gate dielectric layer 260 having nitrogen provided proximate the interface with gate 254, stated as, "nitrogen...confined within the top 5-10Å of PMOS gate dielectric layer 260 (Col. 5, lines 15-20; Figs. 2 and 4d-4e). Therefore, in no fair or reasonable interpretation does Chau, singularly or in any combination with the art of record, teach or suggest nitrogen atoms being higher in concentration within the gate dielectric layer [of the p-type field effect transistors] at only one elevational location...wherein the one elevational location is **spaced from a gate** as recited in claim 38. Chau, singularly or in any combination with the art of record, fails to teach or suggest a positively recited limitation of claim 38, and therefore, claim 38 is allowable.

Claims 39-42, 50 and 54-55 depend from independent claim 38, and therefore, are allowable for the reasons discussed above with respect to the independent claim, as well as for their own recited features which are not shown or taught by the art of record.

Regarding the anticipation rejection against claim 45 based on Chau, such claim is amended to recite a gate dielectric layer of n-type field effect transistors comprising an interface with a gate wherein a composition [of the gate dielectric layer] proximate the interface is substantially void of nitrogen atoms. The originally-filed application supports the amendment language at, for example, Figs. 5-7. Chau teaches NMOS gate dielectric layer 220 having nitrogen provided

proximate an interface with gate 214 (col. 4, lines 58-62; Figs. 2 and 4d-4e). Therefore, in no fair or reasonable interpretation does Chau, singularly or in any combination with the art of record, teach or suggest a gate dielectric layer of n-type field effect transistors comprising an interface with a gate wherein a composition [of the gate dielectric layer] proximate the interface is substantially void of nitrogen atoms as recited in claim 45. Chau, singularly or in any combination with the art of record, fails to teach or suggest a positively recited limitation of claim 45, and therefore, claim 45 is allowable.

Claims 46, 52 and 56-57 depend from independent claim 45, and therefore, are allowable for the reasons discussed above with respect to the independent claim, as well as for their own recited features which are not shown or taught by the art of record.


Further, Applicant herewith submits a duplicate copy of the Supplemental Information Disclosure Statement and Form PTO-1449 filed in this application on May 6, 2002. No initialed copy of the PTO-1449 has been received back from the Examiner. To the extent that the submitted references listed on the Form PTO-1449 have not already been considered, and the Form PTO-1449 has not been initialed with a copy being returned to Applicant, such examination and initialing is requested at this time, as well as return of a copy of the initialed Form PTO-1449 to the undersigned.

In view of the foregoing, allowance of all pending claims is requested. This application is now believed to be in immediate condition for allowance, and action to that end is respectfully requested. If the Examiner's next anticipated

action is to be anything other than a Notice of Allowance, the undersigned respectfully requests a telephone interview prior to issuance of any such subsequent action.

Respectfully submitted, 

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